

#11  
4/4/00  
PC

S/N 09/016,707

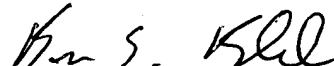
**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>Applicant:</b>	<b>MEYER</b>	<b>Examiner:</b>	<b>H. Xu</b>
<b>Serial No.:</b>	<b>09/016,707</b>	<b>Group Art Unit:</b>	<b>1774</b>
<b>Filed:</b>	<b>JANUARY 30, 1998</b>	<b>Docket No.:</b>	<b>13132.1US01</b>
<b>Title:</b>	<b>SPHEROIDAL SLAG AND FLY ASH PARTICLES AND APPARATUS AND PROCESS FOR PRODUCING SAME</b>		

**CERTIFICATE UNDER 37 CFR 1.8**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on March 22, 2000

  
Bruce E. Black

**REVOCATION AND POWER OF ATTORNEY**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Please revoke any existing Powers of Attorney, if any, and appoint the following attorneys and/or patent agents to prosecute this application and to transact all business in the U.S. Patent and Trademark Office in connection therewith:

Ahroehr, John W.  
 Anderson, Gregg L.  
 Anscomb, Gregory M.  
 Batzli, Brian H.  
 Beard, John L.  
 Berna, John M.  
 Black, Bruce E.  
 Branch, John W.  
 Bremer, Dennis C.  
 Byness, Steven C.  
 Byrne, Linda M.  
 Carlson, Alan G.  
 Caspora, Philip P.  
 Chiapetta, James R.  
 Clifford, John A.  
 Cochran, William W.  
 Daignault, Ronald A.  
 Daley, Dennis R.  
 Dalglish, Leslie E.  
 Daulton, Julia R.  
 DeVries Smith, Katherine M.  
 DiPietro, Mark J.  
 Edell, Robert T.  
 Epp Ryan, Sandra  
 Glance, Robert J.  
 Goggin, Matthew J.  
 Golla, Charles E.  
 Gorman, Alan G.  
 Gould, John D.  
 Gregson, Richard  
 Gressens, John J.  
 Hayra, Curtis B.  
 Hillson, Randall A.  
 Holzer, Jr., Richard J.  
 Johnston, Scott W.  
 Kadlevitch, Natalie D.  
 Karjelcar, Shankat  
 Kastelic, Joseph M.  
 Kettelberger, Denise  
 Keys, Joramio J.  
 Kucari, Homer L.  
 Kowalchyk, Alan W.  
 Kowalchyk, Katherine M.

Reg. No. 40,481  
 Reg. No. 28,828  
 Reg. No. 42,264  
 Reg. No. 32,960  
 Reg. No. 27,612  
 Reg. No. 43,496  
 Reg. No. 41,622  
 Reg. No. 41,633  
 Reg. No. 40,528  
 Reg. No. 34,130  
 Reg. No. 32,404  
 Reg. No. 25,959  
 Reg. No. 33,227  
 Reg. No. 39,634  
 Reg. No. 30,247  
 Reg. No. 26,652  
 Reg. No. 25,968  
 Reg. No. 34,994  
 Reg. No. 40,579  
 Reg. No. 36,414  
 Reg. No. 42,157  
 Reg. No. 28,707  
 Reg. No. 20,187  
 Reg. No. 39,667  
 Reg. No. 40,620  
 Reg. No. 44,125  
 Reg. No. 26,896  
 Reg. No. 38,472  
 Reg. No. 18,223  
 Reg. No. 41,804  
 Reg. No. 33,112  
 Reg. No. 29,165  
 Reg. No. 31,838  
 Reg. No. 42,668  
 Reg. No. 39,721  
 Reg. No. 34,196  
 Reg. No. 34,049  
 Reg. No. 37,160  
 Reg. No. 33,924  
 Reg. No. 42,724  
 Reg. No. 21,197  
 Reg. No. 31,535  
 Reg. No. 36,848

Lacy, Paul E.  
 Larson, James A.  
 Liepa, Mary E.  
 Lindquist, Timothy A.  
 Lycke, Lawrence E.  
 McAuley, Steven A.  
 McDonald, Daniel W.  
 McIntyre, Jr., William F.  
 Mueller, Douglas P.  
 Pauly, Daniel M.  
 Pendergast, Paul  
 Phillips, John B.  
 Plunkett, Theodore  
 Pytel, Melissa J.  
 Qualley, Terry  
 Reich, John C.  
 Reiland, Earl D.  
 Schmalzer, David G.  
 Schuman, Mark D.  
 Schumann, Michael D.  
 Scull, Timothy B.  
 Sebald, Gregory A.  
 Skoog, Mark T.  
 Spellman, Steven J.  
 Small-DeBell, Kirstin L.  
 Storer, Shelley D.  
 Sumner, John P.  
 Sumners, John S.  
 Swenson, Erik G.  
 Telleksen, David K.  
 Trembath, Jon R.  
 Underhill, Albert L.  
 Vandeburgh, J. Derek  
 Wahl, John R.  
 Weaver, Kattie G.  
 Welter, Paul A.  
 Whipps, Brian  
 Wickham, J. Scot  
 Williams, Douglas J.  
 Witt, Jonelle  
 Wu, Tong  
 Xu, Min S.  
 Zeuli, Anthony R.

Reg. No. 38,946  
 Reg. No. 40,443  
 Reg. No. 40,066  
 Reg. No. 40,701  
 Reg. No. 38,540  
 Reg. No. P-46,084  
 Reg. No. 32,044  
 Reg. No. P-44,921  
 Reg. No. 30,300  
 Reg. No. 40,123  
 Reg. No. 46,068  
 Reg. No. 37,206  
 Reg. No. 37,209  
 Reg. No. 41,512  
 Reg. No. 25,148  
 Reg. No. 37,703  
 Reg. No. 25,767  
 Reg. No. 39,828  
 Reg. No. 31,197  
 Reg. No. 30,422  
 Reg. No. 42,137  
 Reg. No. 33,280  
 Reg. No. 40,178  
 Reg. No. 45,124  
 Reg. No. 43,164  
 Reg. No. 45,135  
 Reg. No. 29,114  
 Reg. No. 24,216  
 Reg. No. 45,147  
 Reg. No. 32,314  
 Reg. No. 38,344  
 Reg. No. 27,403  
 Reg. No. 32,179  
 Reg. No. 33,044  
 Reg. No. 43,245  
 Reg. No. 30,890  
 Reg. No. 43,261  
 Reg. No. 41,376  
 Reg. No. 27,054  
 Reg. No. 41,980  
 Reg. No. 43,361  
 Reg. No. 39,536  
 Reg. No. 45,255

Please direct all correspondence in this application to:

Bruce E. Black  
Merchant & Gould P.C.  
3100 Northwest Center  
90 South Seventh Street  
Minneapolis, MN 55402-4131  
Telephone: 612.332.5300  
Facsimile: 612.332.9081

Date: 2-28-00

By: Bruce Hasland  
Name: BRUCE HASLAND  
Title: CFO



S/N 09/016,707

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: MEYER  
Serial No.: 09/016,707  
Filed: JANUARY 30, 1998  
Title: SPHEROIDAL SLAG AND FLY ASH PARTICLES AND APPARATUS AND PROCESS FOR PRODUCING SAME

Examiner: H. Xu  
Group Art Unit: 1774  
Docket No.: 13132.1US01

**CERTIFICATE UNDER 37 C.F.R. § 3.73(b)**

Diamond Grit of Ortonville, Inc., a corporation organized and existing under the laws of the State of Minnesota, having a place of business at 499 Cottage Grove Drive, Woodbury, Minnesota 55129, certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

- A. ☒ An assignment from the inventor(s), of the patent application identified above.  
The assignment was recorded in the Patent and Trademark Office on January 30, 1998, at Reel 9002, Frame(s) 0427, or for which a copy is attached.
- B. ☐ A chain of title from the inventor(s) of the patent application identified above to the current assignee as shown below:
1. From: To:  
The document was recorded in the Patent and Trademark Office at Reel ,  
Frame(s) , or for which a copy thereof is attached.
  2. From: To:  
The document was recorded in the Patent and Trademark Office at Reel ,  
Frame(s) , or for which a copy thereof is attached.

3. From: To:

The document was recorded in the Patent and Trademark Office at Recd  
Frame(s) , or for which a copy thereof is attached.

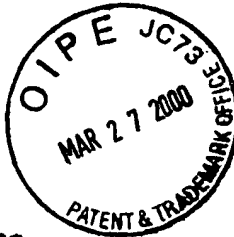
- ☐ Additional documents in the chain of title are listed on a supplemental sheet.
- ☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 2-28-00

By: Bruce Hasland  
Name: Bruce Hasland  
Title: CFO



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
Assistant Secretary and Commissioner  
of Patents and Trademarks  
Washington, D.C. 20231

APRIL 29, 1998

TRUESDALE LAW OFFICE  
CAROLE TRUESDALE, ESQ.  
642 NIGHTINGALE BLVD.  
STILLWATER, MN 55082

PTAS

100653601A

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM OF THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723, PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/30/1998

REEL/FRAME: 9002/0427  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).  
ASSIGNOR:  
MEYER, PAUL W.

DOC DATE: 01/30/1998

ASSIGNEE:  
DIAMOND GRIT OF OTTOMVILLE, INC.  
499 COTTAGE GROVE DRIVE  
WOODBURY, MINNESOTA 55129

SERIAL NUMBER: 09016707  
PATENT NUMBER:

FILING DATE: 01/30/1998  
ISSUE DATE:

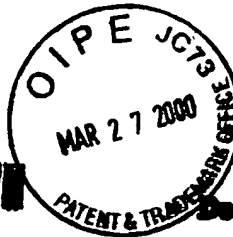
JOANN STEWART, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

03-08-1998

01-30-98



100653601



Doclet Number 1017030

**PATENT ASSIGNMENT RECORDATION COVER SHEET**

To the Honorable Commissioner of Patents and Trademarks  
Please record the attached original document or copy thereof.

1. Name of conveying party(ies):

Paul W. Meyer

2. Name and address of receiving party(ies):

Diamond Grit of Oronville, Inc.  
499 Cottage Grove Drive  
Woodbury, MN 55129

Additional names of conveying party(ies) attached?  
☐ Yes ☒ No

3. Nature of conveyance: ☒ Assignment

Execution Date(s): January 30, 1998

4. Application number or patent number:

☒ This document is being filed with a new patent application on January 30, 1998.

☐ This document is to be recorded against the following patent application or patent:

5. Name and address of party to whom  
correspondence should be mailed:

Carole Trussdale, Esq.  
Trussdale Law Office  
642 Nightingale Blvd.  
Stillwater, MN 55082

6. Total number of applications and patents  
involved: 1

x \$40.00

7. Total fee (37 CFR 3.41)...\$40.00.

A check in the amount of \$40.00 is enclosed.  
Charge any additional fee to Deposit Account  
No. 50-0397

8. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy  
is a true copy of the original document.

Carole Trussdale  
Attorney

Signature

*Carole Trussdale*

Date

*January 30, 1998*

Total number of pages including cover sheet, attachments, and document: 2

Form AAS-Rec.Cov Rev. 1/21/98

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments, Washington, D.C. 20231

**ASSIGNMENT**

Docket Number 1017US01

Whereas I, the below named inventor, with residence and citizenship as indicated below, have made an invention in

**SPHEROIDAL SLAG AND FLY ASH PARTICLES AND APPARATUS  
AND PROCESS FOR PRODUCING SAME**

and have contemporaneously executed an application for Letters Patent of the United States of America based thereon; Now, therefore, for good and valuable consideration I have agreed to assign and transfer and do hereby assign and transfer unto Diamond Grit of Ortonville, Inc. (doing business as Black Diamond), a corporation of Minnesota, having its principal office at Woodbury, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by me or made jointly with others (provided any such improvement is made during my employment by the said Corporation), and in and to any and all Letters Patent, renewals, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reissuance, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by me had this assignment and transfer not been made; I do further agree for myself and for my heirs, executors, and administrators, to execute and deliver any further applications, assignments, and documents, and to perform such other acts as I lawfully may, that may be deemed necessary by the said Corporation, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries; And I do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to Diamond Grit of Ortonville, Inc., as the assignee of the entire right, title, and interest therein.

In witness whereof, I have hereunto signed my name on the day and year set forth below.

*Paul W. Meyer*

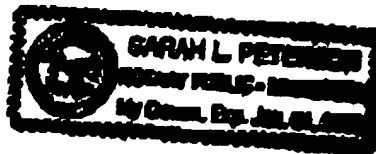
Paul W. Meyer

Residence: City of Woodbury, County of Washington  
State of Minnesota

Citizenship: USA

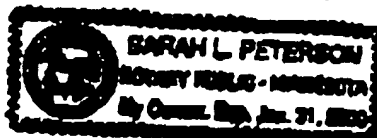
STATE OF MINNESOTA )

COUNTY OF WASHINGTON )



On this 30th day of January 1998, before me personally appeared the above-named Paul W. Meyer, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that he executed the same as his free act and deed, on the day and year aforesaid.

(Seal)



*Sarah L. Peterson*